Data Validation Checklist
Inorganic Analyses

Project:	35TH Avenue Superfund Site	Project No:	60430028; 1
Laboratory:	TestAmerica – Savannah, GA	Job ID.:	680-106200-4
Method:	SW-846 6010C (Aluminum, Arsenic, Iron, and Lead)	Associated Samples:	Refer to **Attachment A** (Sample Summary)
Matrix:	Soil	Samples Collected:	10/07/2014
Reviewer:	Karen M Trujillo, URS Group, Inc.	Date:	08/06/2015
Concurrence[1]:	Martha Meyers-Lee, URS Group, Inc.	Date:	08/07/2015

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
1. Were sample preservation requirements met? If pH of aqueous sample >2 and was not adjusted by laboratory prior to analysis, J- flag positive results and R- flag non-detect results.			✓		
2. Were all COC records signed and integrity seals intact, indicating that COC was maintained for all samples?	✓				
3. Were there any problems noted in laboratory data package concerning condition of samples upon receipt?		✓			
4. Do any soil/sediment samples contain more than 50% water? If yes, then results are to be reported on a wet-weight basis.		✓			
5. Have any technical holding times, determined from date of collection to date of analysis, been exceeded? (Hg: ≤28 days, other metals: ≤6 months; Cr+6: ≤24 hours from extraction). If not, then J- flag positive results and R- flag non-detect aqueous results.		✓			
6. Were results for all project-specified target analytes reported?	✓				
7. Were project-specified Reporting Limits achieved for undiluted sample analyses?		✓		Resident Soil RSL with THQ = 1.0 (ORNL, June 2015) for target analytes: • Aluminum: 77,000 mg/Kg • Arsenic: 0.68 mg/Kg • Iron: 55,000 mg/Kg • Lead: 400 mg/Kg The MDL for each target analyte is less than the respective above-mentioned RSL in all undiluted samples, except arsenic (MDL is 0.69 mg/Kg) in sample 680-106200-54 [CV0509Y-CSD (0-4")]. A data gap does not exist as arsenic was detected in sample 680-106200-54 [CV0509Y-CSD (0-4")].	
8. Were method blank (MB) prepared at the appropriate frequency (one per 20 samples, batch, matrix, and level)?	✓				

[1] Independent technical reviewer

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
9. Was a calibration blank (ICB/CCB) analyzed at the beginning, after every 10th sample, and at the end of each analytical run?	✓				
10. Were target analytes detected in the method and/or calibration blanks?		✓		Target analyte was not detected in the method blanks. Calibration blanks were not evaluated.	
11. Were target analytes reported in equipment/rinsate blanks analyses above the DL?			✓	According to the QAPP, a rinsate blank is to be collected after each decontamination event, which occurs once per week per the client. A rinsate blank is not associated with this sampling event.	
12. Were contaminants detected in samples below the blank contamination action level? o If blank result > RL, • Flag sample results ≤ RL with a U • Flag positive sample results > RL and ≤10x blank result , as J+ positive results o If blank result ≤RL, • Flag sample results ≤ RL with a U • Flag positive sample results > RL and ≤10x blank result , as J+ positive results			✓	Target analytes were not detected during the analysis of the method blanks. An evaluation of the effect of blank contamination on soil sample results was based on method blank results, and not calibration blank results.	
13. Are there negative laboratory blank results with the absolute value ≤RL? If yes, then flag positive and non-detect sample results that are < 10x absolute blank value as J- and UJ, respectively.		✓			
14. Was a field duplicate analyzed?	✓			CV0509Y-CSD (0-4") (680-106200-54) is a field duplicate of sample CV0509Y-CS (0-4") (680-106200-53)	
15. Was precision deemed acceptable as defined by the project plans?	✓			Refer to **Attachment B** (Field Duplicate Evaluation)	
16. Were initial and continuing calibration standards analyzed at the lab/project-specified frequency for each instrument? o 6010C: • ICAL: Blank and one standard • ICV initially, and CCV every 10th sample and at the end of the analytical run • Lower Limit of Quantitation Check Sample (CRI) to be analyzed after establishing lower laboratory reporting limits and as needed o 7471A: • ICAL: Blank and five standards • ICV initially, and CCV every 10th sample and at the end of the analytical run o 7196A: • ICAL: Blank and minimum of five standards • ICV initially, and CCV every 10th sample (15th per Method) and at the end of the analytical run	✓			6010C: 10/13/2014, 10/14/2014, 10/15/2014, and 10/16/2014. For each day of analysis: • One blank and one standard initially. • ICV initially, and CCV every 10 samples and at end of run. • CRI after initial calibration blank analysis.	
17. Were these results within lab/project specifications? o 6010C	✓				

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
• ICV/CCV (Criteria: 90-110%R): ▪ If %R <75, then J- flag positive results and R-flag non-detects ▪ If 75-89%R, then J- flag positive results and UJ flag non-detects ▪ If 111-125%R, then J flag positive results ▪ If >125%R, then J+ flag positive results ▪ If >160%R, then R flag positive results • CRI (Method: 70-130%R, Laboratory: 50-150%R; Project: 50-150%R for Sb, Pb, and Tl, and 70-130%R for all other analytes): ▪ If CRI %R <50 (<30% for Sb, Pb, TL), then R flag results ≤ 2x RL and J flag positive results >2x RL ▪ If CRI %R 50-69% (30-49% for Sb, Pb, TL), then J- and UJ flag positive results <2x RL and ND, respectively ▪ If CRI %R >130% and ≤180% (>150%, but ≤200% for Sb, Pb, TL), then J+ flag positive results <2x RL ▪ If CRI %R >180% (>200% for Sb, Pb, TL), then R flag positive results o 7471A • ICV/CCV (Criteria: 80-120%R): ▪ If correlation coefficients <0.995, then J and UJ flag positive and non-detect results. ▪ If %R <65, then J- flag positive results and R-flag non-detects ▪ If 65-79%R, then J- flag positive results and UJ flag non-detects ▪ If 121-135%R, then J flag positive results ▪ If >135%R, then J+ flag positive results ▪ If >170%R, then R flag positive results • CRI (Method: Not required, Laboratory: 50-150%R, Project: 70-130%R): ▪ If CRI %R <50, then R flag results ≤ 2x RL and J flag positive results >2x RL ▪ If CRI %R 50-69%, then J- and UJ flag positive results <2x RL and ND, respectively ▪ If CRI %R >130% and ≤180%, then J+ flag positive results <2x RL ▪ If CRI %R >180%, then R flag positive result o 7196A: • ICV/CCV (Criteria: 90-110%R): ▪ If correlation coefficients <0.995, then J and UJ flag positive and non-detect results. ▪ If %R <65, then J- flag positive results and R-flag non-					

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
detects ▪ If 65-90%R, then J- flag positive results and UJ flag non-detects ▪ If 110-135%R, then J flag positive results ▪ If >135%R, then J+ flag positive results ▪ If >170%R, then R flag positive results					
18. Was the interference check sample (ICS) analyzed at the beginning of each ICP analytical run?	✓				
19. Are ICS recoveries within 80-120% of the true value? If not, qualify data as follows when native Al, Fe, Ca, and Mg sample concentrations are equal to or greater than the ICS spiking level: o If >120%R (or >true value plus 2x CRQL), J+ flag positive results o If 50-79%R (or less than true value – 2x the CRQL), J- flag positive results and UJ flag non-detects o If <50%R, J- flag positive results and R-flag non-detects	✓				
20. Was a LCS analyzed for each preparation batch (one per 20 samples per matrix and level)?	✓				
21. Did LCS recoveries meet method/laboratory/project (80-120%R) specifications? o Soil: • LCS result > Upper control limit (UCL): J+ flag positive results • LCS result < Lower control limit (LCL): J- flag positive results and UJ flag non-detects o Aqueous: • If <50%R, then J- and R flag positive and ND results, respectively • If 50-LCL%R, J- and UJ flag positive and ND results, respectively • >UCL: J+ Flag positive results • >150%R: R Flag results	✓				
22. Was the RPD between LCS and LCSD results within method/laboratory /project control limits (≤20%RPD)? If not, J and UJ flag positive and non-detect results, respectively			✓	LCS only	
23. Was a Matrix Spike (MS) and Matrix Spike Duplicate (MSD) analyzed once per preparation batch?	✓			• Batch 353262: 680-106200-51 [CV0753B-CS (0-4")], MS/MSD/PDS • Batch 353249: 640-49420-A-9 (Batch Sample), MS/MSD/PDS	
24. Is the MS and MSD parent sample a project-specific sample?	✓	✓			
25. Was a post-digestion spike (PDS) analysis conducted when MS and/or MSD results did not meet control limits (Note: PDS is not required for silver, mercury, or hexavalent chromium)?	✓				
26. For all analytes with sample concentration < 4 x spike concentration, are spike recoveries within method (6010C: 75-125%R MS/MSD and 80-120%R PDS; 7471A: 80-120%R MS/MSD; 7196A: 85-115%R MS), laboratory (MS, MSD, and PDS: 75-125%R for 6010C/7471 (as		✓		680-106200-51 [CV0753B-CS (0-4")]: Arsenic MS and MSD @194 and 120%R (Lab/Project: 75-125%R); PDS @104%R (Lab/Project: 80-120%R). Qualification of data is not warranted, as the MSD recovery met control limits.	

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
applicable) and 80-120%R for 7196), and project (as noted below) specifications? *Only QC results for project samples are evaluated.* If not, ○ 6010C: • If MS %R <30 and PDS %R <75, then J- and R Flag positive and ND results, respectively • If MS %R <30 and PDS %R >75, then J flag positive and UJ flag non-detect results • If MS and MSD %R 30-74 and PDS%R <75, then J- flag positive and UJ flag non-detect results • If MS and MSD %R 30-74 and PDS%R ≥75, then J flag positive and UJ flag non-detect results • If MS, MSD, and PDS %R >125, J+ flag positive results • If MS and MSD %R >125 and PDS %R ≤125, then J flag positive results • If MS and MSD %R <30 and no PDS, then J- flag positive and R-flag non-detect results • If MS and MSD %R 30-74 and no PDS, then J- and UJ flag positive and non-detect results, respectively • If MS and MSD %R >125 and no PDS, then J+ flag positive results ○ 7471A/7196: • If MS %R <30, then J- and R Flag positive and ND results, respectively • If MS and MSD %R 30-LCL, then J- flag positive and UJ flag non-detect results • If MS and MSD %R >UCL, then J+ flag positive results					
27. For all analytes with sample concentration < 4 x spike concentration, were laboratory/project (≤20%RPD) criteria met for precision during the MS and MSD analysis? *Only QC results for project samples are evaluated.* ○ If RPD >20%, J and UJ flag positive and non-detect results.	✓				
28. Was a serial dilution conducted for 6010C/EPA 200.7?	✓				
29. Is the serial dilution parent sample a project-specific sample?	✓	✓		680-106200-51 [CV0753B-CS (0-4")] and 640-49420-A-9 (Batch Sample)	
30. Is the percent difference between the serially diluted result and undiluted result less 10% (for those analytes with native concentrations greater than 50x the DL)? *Only QC results for project samples are evaluated.* ○ If %D >10, J and UJ flag positive and non-detect results, respectively.	✓				
31. Was a laboratory duplicate analyzed?		✓			
32. Was the lab duplicate analysis conducted on a project-specific sample?			✓		

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
33. Were criteria for laboratory/project precision met? *Only QC results for project samples are evaluated.* o If RPD values >20% (35% for soil/sediment) or absolute difference > RL (2x RL for soil/sediment), then J and UJ flag positive and non-detect results, respectively			✓		
34. Were lab comments included in report? If yes, summarize contents or attach a copy of the narrative.	✓			Refer to **Attachment C** (Case Narrative)	
Comments: The data validation was conducted in accordance with the *Non-Industrial Use Property Sampling Event QAPP for the 35th Avenue Removal Site, Birmingham, Alabama, Revision 1* (OTIE, October 2012). The data review process was modeled after the *USEPA Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Inorganic Data Review* (EPA 540-R-04-004, October 2004). Sample results have been qualified based on the results of the data review process (**Attachment D**). Criteria for acceptability of data were based upon available site information, analytical method requirements, guidance documents, and professional judgment					

DV Flag Definitions:

J- The result is an estimated quantity, but the result may be biased low.

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ The result is an estimated quantity, but the result may be biased high.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the associated level; blank contamination may exist.

UJ The analyte was analyzed for, but was not detected. The reported limit is approximate and may be inaccurate or imprecise.

ATTACHMENT A

SAMPLE SUMMARY

SAMPLE SUMMARY

Client: Oneida Total Integrated Enterprises LLC

Job Number: 680-106200-4
Sdg Number: 680-106200-04

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-106200-51	CV0753B-CS (0-4")	Solid	10/07/2014 1620	10/11/2014 0933
680-106200-51MS	CV0753B-CS (0-4")	Solid	10/07/2014 1620	10/11/2014 0933
680-106200-51MSD	CV0753B-CS (0-4")	Solid	10/07/2014 1620	10/11/2014 0933
680-106200-52	CV0613E-CS (0-4")	Solid	10/07/2014 1540	10/11/2014 0933
680-106200-53	CV0509Y-CS (0-4")	Solid	10/07/2014 1130	10/11/2014 0933
680-106200-54	CV0509Y-CSD (0-4")	Solid	10/07/2014 1130	10/11/2014 0933
680-106200-55	CV0509X-CS6	Solid	10/07/2014 1020	10/11/2014 0933
680-106200-56	CV0509X-CS12	Solid	10/07/2014 1030	10/11/2014 0933
680-106200-57	CV0509X-CS18	Solid	10/07/2014 1040	10/11/2014 0933
680-106200-58	CV0613A-CS6	Solid	10/07/2014 1300	10/11/2014 0933
680-106200-59	CV0613A-CS12	Solid	10/07/2014 1310	10/11/2014 0933
680-106200-60	CV0613A-CS18	Solid	10/07/2014 1320	10/11/2014 0933
680-106200-61	CV0613A-CS24	Solid	10/07/2014 1330	10/11/2014 0933
680-106200-62	CV0509KK-CS6	Solid	10/07/2014 1410	10/11/2014 0933

ATTACHMENT B

FIELD DUPLICATE EVALUATION

Evaluation of Field Duplicate Results **Attachment B**

Analyte	CV0509Y-CS (0-4'') 680-106200-53		RL	CV0509Y-CSD (0-4'') 680-106200-54		RL	Unit	Avg. RLx5	RPD	Absolute difference	2x Avg RL	Action
Aluminum	13000		23	14000		23	mg/kg	115	**7**	NA	NA	None, RPD ≤ 50%
Arsenic	26		2.3	24		2.3	mg/kg	11.5	**8**	NA	NA	None, RPD ≤ 50%
Iron	37000		23	35000		8.1	mg/kg	77.75	**6**	NA	NA	None, RPD ≤ 50%
Lead	340		11	280		12	mg/kg	57.5	**19**	NA	NA	None, RPD ≤ 50%

Note: If the analyte was not detected, then the cell was left blank.

mg/kg - Milligrams per kilogram
NA - Not applicable
RL - Reporting limit
RPD - Relative percent difference

Precision is based on either the absolute difference between sample results or RPD. If the sample results are less than or equal to 5x's the RL, then precision is based on the absolute difference between duplicate results. If sample results >5x's RL, then precision is evaluated using RPD. J-Flag sample results whenever the absolute difference is greater than the RL (2x for soils) or the RPD >20% (50% for soil). Table above presents the results for detected analytes only.

ATTACHMENT C

CASE NARRATIVE

CASE NARRATIVE
Client: Oneida Total Integrated Enterprises LLC
Project: 35th Avenue Superfund Site
Report Number: 680-106200-4

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

No additional analytical or quality issues were noted, other than those described below or in the Definitions/Glossary page.

RECEIPT

The samples were received on 10/11/2014 9:33 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 0.8º C, 1.8º C, 4.8º C and 5.2º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) LOW LEVEL PAH

Samples CV0753B-CS (0-4") (680-106200-51), CV0509X-CS6 (680-106200-55), CV0509X-CS12 (680-106200-56), CV0509X-CS18 (680-106200-57), CV0613A-CS6 (680-106200-58), CV0613A-CS12 (680-106200-59), CV0613A-CS18 (680-106200-60), CV0613A-CS24 (680-106200-61) and CV0509KK-CS6 (680-106200-62) were analyzed for Semivolatile Organic Compounds (GC/MS) Low level PAH in accordance with EPA SW846 Method 8270D.

Method(s) 8270D_LL_PAH: Manual integration was performed on the following sample(s): CV0509KK-CS6 (680-106200-62), CV0509X-CS12 (680-106200-56), CV0509X-CS18 (680-106200-57), CV0509X-CS6 (680-106200-55), CV0613A-CS12 (680-106200-59), CV0613A-CS18 (680-106200-60), CV0613A-CS24 (680-106200-61), CV0613A-CS6 (680-106200-58), CV0753B-CS (0-4") (680-106200-51).

Method(s) 8270D_LL_PAH: The following sample(s) was diluted due to the nature of the sample matrix : CV0509KK-CS6 (680-106200-62), CV0509X-CS12 (680-106200-56), CV0509X-CS18 (680-106200-57), CV0509X-CS6 (680-106200-55), CV0613A-CS6 (680-106200-58), CV0753B-CS (0-4") (680-106200-51), CV0753B-CS (0-4") (680-106200-51 MS), CV0753B-CS (0-4") (680-106200-51 MSD). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method(s) 8270D_LL_PAH: The continuing calibration verification (CCV) analyzed in batch 354069 was outside the method criteria for the following analyte(s): Indeno[1,2,3-cd]pyrene and o-Terphenyl. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Several analytes recoveries are outside criteria low for the MS and/or MSD of sample CV0753B-CS (0-4") (680-106200-51) in batch 680-354069.

The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

METALS (ICP)

Samples CV0753B-CS (0-4") (680-106200-51), CV0613E-CS (0-4") (680-106200-52), CV0509Y-CS (0-4") (680-106200-53), CV0509Y-CSD (0-4") (680-106200-54), CV0509X-CS6 (680-106200-55), CV0509X-CS12 (680-106200-56), CV0509X-CS18 (680-106200-57), CV0613A-CS6 (680-106200-58), CV0613A-CS12 (680-106200-59), CV0613A-CS18 (680-106200-60), CV0613A-CS24 (680-106200-61) and CV0509KK-CS6 (680-106200-62) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C.

Aluminum, Arsenic and Iron have recovery outside criteria high for the MS of sample CV0753B-CS (0-4") (680-106200-51) in batch 680-353949.

Lead recovery is outside criteria low for the MSD of sample CV0753B-CS (0-4") (680-106200-51) in batch 680-353949. Aluminum and Iron failed the recovery criteria high.

Refer to the QC report for details.

PERCENT SOLIDS/MOISTURE

Samples CV0753B-CS (0-4") (680-106200-51), CV0613E-CS (0-4") (680-106200-52), CV0509Y-CS (0-4") (680-106200-53), CV0509Y-CSD (0-4") (680-106200-54), CV0509X-CS6 (680-106200-55), CV0509X-CS12 (680-106200-56), CV0509X-CS18 (680-106200-57), CV0613A-CS6 (680-106200-58), CV0613A-CS12 (680-106200-59), CV0613A-CS18 (680-106200-60), CV0613A-CS24 (680-106200-61) and CV0509KK-CS6 (680-106200-62) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP.

ATTACHMENT D

QUALIFIED SAMPLE RESULTS

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CV0753B-CS (0-4") Lab Sample ID: 680-106200-51

Lab Name: TestAmerica Savannah Job No.: 680-106200-4

SDG ID.: 680-106200-04

Matrix: Solid Date Sampled: 10/07/2014 16:20

Reporting Basis: DRY Date Received: 10/11/2014 09:33

% Solids: 87.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	13000	20	10	mg/Kg			1	6010C
7440-38-2	Arsenic	28	2.0	0.59	mg/Kg			1	6010C
7439-89-6	Iron	41000	20	7.0	mg/Kg			1	6010C
7439-92-1	Lead	340	1.0	0.53	mg/Kg			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CV0613E-CS (0-4") Lab Sample ID: 680-106200-52

Lab Name: TestAmerica Savannah Job No.: 680-106200-4

SDG ID.: 680-106200-04

Matrix: Solid Date Sampled: 10/07/2014 15:40

Reporting Basis: DRY Date Received: 10/11/2014 09:33

% Solids: 94.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	16000	19	9.7	mg/Kg			1	6010C
7440-38-2	Arsenic	10	1.9	0.58	mg/Kg			1	6010C
7439-89-6	Iron	33000	19	6.8	mg/Kg			1	6010C
7439-92-1	Lead	140	0.97	0.52	mg/Kg			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CV0509Y-CS (0-4") Lab Sample ID: 680-106200-53

Lab Name: TestAmerica Savannah Job No.: 680-106200-4

SDG ID.: 680-106200-04

Matrix: Solid Date Sampled: 10/07/2014 11:30

Reporting Basis: DRY Date Received: 10/11/2014 09:33

% Solids: 86.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	13000	23	11	mg/Kg			1	6010C
7440-38-2	Arsenic	26	2.3	0.67	mg/Kg			1	6010C
7439-89-6	Iron	37000	23	8.0	mg/Kg			1	6010C
7439-92-1	Lead	340	11	6.0	mg/Kg			10	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CV0509Y-CSD (0-4") Lab Sample ID: 680-106200-54

Lab Name: TestAmerica Savannah Job No.: 680-106200-4

SDG ID.: 680-106200-04

Matrix: Solid Date Sampled: 10/07/2014 11:30

Reporting Basis: DRY Date Received: 10/11/2014 09:33

% Solids: 80.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	14000	23	12	mg/Kg			1	6010C
7440-38-2	Arsenic	24	2.3	0.69	mg/Kg			1	6010C
7439-89-6	Iron	35000	23	8.1	mg/Kg			1	6010C
7439-92-1	Lead	280	12	6.2	mg/Kg			10	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CV0509X-CS6 Lab Sample ID: 680-106200-55

Lab Name: TestAmerica Savannah Job No.: 680-106200-4

SDG ID.: 680-106200-04

Matrix: Solid Date Sampled: 10/07/2014 10:20

Reporting Basis: DRY Date Received: 10/11/2014 09:33

% Solids: 80.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	13000	23	11	mg/Kg			1	6010C
7440-38-2	Arsenic	18	2.3	0.68	mg/Kg			1	6010C
7439-89-6	Iron	33000	23	8.0	mg/Kg			1	6010C
7439-92-1	Lead	80	1.1	0.61	mg/Kg			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CV0509X-CS12 Lab Sample ID: 680-106200-56

Lab Name: TestAmerica Savannah Job No.: 680-106200-4

SDG ID.: 680-106200-04

Matrix: Solid Date Sampled: 10/07/2014 10:30

Reporting Basis: DRY Date Received: 10/11/2014 09:33

% Solids: 89.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	11000	20	9.8	mg/Kg			1	6010C
7440-38-2	Arsenic	11	2.0	0.58	mg/Kg			1	6010C
7439-89-6	Iron	31000	20	6.8	mg/Kg			1	6010C
7439-92-1	Lead	39	0.98	0.52	mg/Kg			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CV0509X-CS18 Lab Sample ID: 680-106200-57

Lab Name: TestAmerica Savannah Job No.: 680-106200-4

SDG ID.: 680-106200-04

Matrix: Solid Date Sampled: 10/07/2014 10:40

Reporting Basis: DRY Date Received: 10/11/2014 09:33

% Solids: 88.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	11000	22	11	mg/Kg			1	6010C
7440-38-2	Arsenic	8.8	2.2	0.66	mg/Kg			1	6010C
7439-89-6	Iron	35000	22	7.8	mg/Kg			1	6010C
7439-92-1	Lead	30	1.1	0.59	mg/Kg			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CV0613A-CS6 Lab Sample ID: 680-106200-58

Lab Name: TestAmerica Savannah Job No.: 680-106200-4

SDG ID.: 680-106200-04

Matrix: Solid Date Sampled: 10/07/2014 13:00

Reporting Basis: DRY Date Received: 10/11/2014 09:33

% Solids: 93.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	11000	21	11	mg/Kg			1	6010C
7440-38-2	Arsenic	22	2.1	0.63	mg/Kg			1	6010C
7439-89-6	Iron	33000	21	7.5	mg/Kg			1	6010C
7439-92-1	Lead	83	1.1	0.56	mg/Kg			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CV0613A-CS12 Lab Sample ID: 680-106200-59

Lab Name: TestAmerica Savannah Job No.: 680-106200-4

SDG ID.: 680-106200-04

Matrix: Solid Date Sampled: 10/07/2014 13:10

Reporting Basis: DRY Date Received: 10/11/2014 09:33

% Solids: 92.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	14000	19	9.3	mg/Kg			1	6010C
7440-38-2	Arsenic	42	1.9	0.55	mg/Kg			1	6010C
7439-89-6	Iron	68000	19	6.5	mg/Kg			1	6010C
7439-92-1	Lead	63	9.3	5.0	mg/Kg			10	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CV0613A-CS18 Lab Sample ID: 680-106200-60

Lab Name: TestAmerica Savannah Job No.: 680-106200-4

SDG ID.: 680-106200-04

Matrix: Solid Date Sampled: 10/07/2014 13:20

Reporting Basis: DRY Date Received: 10/11/2014 09:33

% Solids: 89.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	17000	21	10	mg/Kg			1	6010C
7440-38-2	Arsenic	62	2.1	0.61	mg/Kg			1	6010C
7439-89-6	Iron	73000	21	7.2	mg/Kg			1	6010C
7439-92-1	Lead	32	1.0	0.54	mg/Kg			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CV0613A-CS24 Lab Sample ID: 680-106200-61

Lab Name: TestAmerica Savannah Job No.: 680-106200-4

SDG ID.: 680-106200-04

Matrix: Solid Date Sampled: 10/07/2014 13:30

Reporting Basis: DRY Date Received: 10/11/2014 09:33

% Solids: 87.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	18000	21	11	mg/Kg			1	6010C
7440-38-2	Arsenic	40	2.1	0.63	mg/Kg			1	6010C
7439-89-6	Iron	57000	21	7.5	mg/Kg			1	6010C
7439-92-1	Lead	20	1.1	0.57	mg/Kg			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CV0509KK-CS6 Lab Sample ID: 680-106200-62

Lab Name: TestAmerica Savannah Job No.: 680-106200-4

SDG ID.: 680-106200-04

Matrix: Solid Date Sampled: 10/07/2014 14:10

Reporting Basis: DRY Date Received: 10/11/2014 09:33

% Solids: 94.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	6000	19	9.3	mg/Kg			1	6010C
7440-38-2	Arsenic	12	1.9	0.55	mg/Kg			1	6010C
7439-89-6	Iron	19000	19	6.5	mg/Kg			1	6010C
7439-92-1	Lead	40	0.93	0.49	mg/Kg			1	6010C